



Proposals and issues raised by participants in the French debate on driverless vehicles



Review of the debates held in Rennes, Toulouse, La Rochelle, Sophia Antipolis and Conflans-Sainte-Honorine

A DAY LISTENING TO CITIZEN EXPERTISE

As the five debates organized with our partners in France drew to a close at around 5:30 pm on January 27, we realized that we had experienced something rather special. Why? Because 360 people had just set out their ideal vision of mobility in tomorrow's world. New ways of getting around



were conceived, along with new services, new territories and new forms of governance. And because those 360 people also revealed what they don't want, what worries them and which issues they would flag to the decision makers. All of this was made possible by a framework of trust and open dialogue, where everyone present was legitimately able to express their thoughts and be heard. Another source of satisfaction: the

public and private partners we brought together to make this event happen all took note of the citizens' opinions on the issues that most affect them.

And the outcome? When we share information and views, politics gets a new lease of life. The participants expect this kind of technological (r)evolution to be - perhaps more than anything else - a political issue. Ultimately, we are all concerned with how tomorrow's world will unfold, so we must make the necessary decisions together.

The success of the day's debates means we are now ready to engage in a similar dialogue at an international level, to make sure that the citizens' voice is commensurate with the industrial and political strategies being applied, and with the ensuing challenges for our societies.

Here at Missions Publiques, we would like to thank the partners who placed their trust in us, the experts who accepted to join us in this approach, which is rather an unusual one for them, to the facilitators of the discussions, the journalists who gave the initiative national visibility, and all the participants in the day's debates.



"Moving on" is a publication from Missions Publiques in partnership with the Urban Community of Sophia Antipolis, the Urban Community of Grand Paris Seine et Oise, the Urban Community of La Rochelle, Toulouse Métropole and Sicoval, and Rennes Métropole, the French Ministry for the Ecological and Inclusive Transition, Airbus, Allianz, Kéolis, Leonard and Forum Vies Mobiles,

as part of the Citizens' Debate on the introduction of driverless vehicles in our lives. With additional support from CEREMA.

Editor-in-chief: Yves Mathieu, Missions Publiques – General coordination: Typhanie Scognamiglio - Contributors: Yves Mathieu, Judith Ferrando, Typhanie Scognamiglio, Lucile Philip, Océane Chauvin - License Creative Commons for text only: 2022 - Editorial design and coordination: Androids & Sheep - Graphic design and artistic management Denis Esnault / enodenis.com - Cover: Philippe Lopparelli/Tendance Floue - Bosch Media Service



6. Ready to change? Go on then! Use rather than ownership



10. Jobs and data: sensitive topics Concern for the impact on certain jobs



12. Portfolio A look at the different debate venues



15. Focus on the results in La Rochelle, Sophia Antipolis, Rennes, Conflans-Sainte-Honorine and Toulouse



17. The expected role of the public authorities, research and the private sector



Mobilized for mobility

361 people were brought together in five regions to reflect on and debate the impact of driverless vehicles on our lives. This was the first debate of its kind and was a stimulating experience, full of lessons, questions, challenges and proposals.

ow do you get citizens from every walk of life to reflect on a theme involving a broad range of societal issues and with a very technical side? This was no ordinary survey; instead, the discussions held on 27 January took the form of an informed debate. A few days earlier, the participants had received a news magazine to help them get up to speed with the topic. On the day, each work sequence was preceded by an informative video setting out the issues at stake and the full range of viewpoints⁽¹⁾. Nearly 50 questions were put to the citizens in attendance, including two entirely open, creative sequences. The themes dealt with included the expected benefits to our everyday lives, personal data management, the role of companies and public authorities, mobility for all and the arrival of the first unmanned flying taxis.

Tried and tested protocol

The French debate followed a tried and tested protocol, based on principles taken from the social and political sciences. This enabled high quality reasoning and argumentation. Participants were able to give several answers to certain questions, to express preferences and/or to reject options they disliked. They were able to say which ideas matched their opinions the closest and state their opposition or dissatisfaction with one or more proposals.

This magazine presents the main lessons learned from the day-long debate, based on analysis by staff at Missions Publiques with support from its partners, the scientific and technical committee and some European experts. The voting tool used by participants was designed by D21, a social business and think-tank. The percentages given in the following articles reflect the number of responses and not the number of respondents. All participants were entitled to several votes. The percentages do not therefore add up to 100%.

(1) The news magazine and introductory videos are available on the debate website: www.debatcitoven.fr

Next, a European debate

The French citizens' debate and the first citizens' focus group sessions run by the Consortium for Science, Policy & Outcomes (Arizona State University) in 2018, with the support of the Kettering Foundation, have laid the foundations for a series of international debates to run over 2018 and 2019 in Europe and North America. These debates will mobilize hundreds of citizens from several dozen cities, inviting them to share their vision of how this revolution in mobility will be rolled out in their home territories.

Five debates run simultaneously on one day Same questions, same protocol

lives?

for you?

09:00 am						05:00 pm
	1	1	1	1		1
Sequence 0 Intro	Sequence 1 Driverless vehicles, what do they mean	Sequence 2 Driverless vehicles: changes in our	Sequence 3 What scenarios for the roll-out of driverless cars?	Sequence 4 A society of mobile robots? Opportunities and	Sequence 5 Focus on participants' region	Sequence 6 Evaluation of the day's debate

The French debate was set up and run by Missions Publiques with a coalition of partners including local authorities, private partners, public institutions and research institutes.

concerns



"The biggest developments will come with shared cars."

ANNE-MARIE IDRAC

What aspects of our lives will self-driving vehicles change? What role will industry play? What will the taxpayers' contribution be? Who will control data? What will the social and environmental impact be? An interview with Anne-Marie Idrac, senior official in charge of French strategy on self-driving vehicles.



France's vision

The first French strategy for self-driving vehicles was unveiled on May 14, 2018. It states that "for self-driving vehicle technology to develop, it is important that it is accepted by everyone involved. Several aspects must be taken into consideration such as safety, fitness for purpose(s), impacts on mobilities and their environmental footprint and jobs". The strategy will largely be supported by local authorities and will take citizens' expectations on-board. In this respect, the debate highlighted the question of mobility for all (people with disabilities, the elderly, etc.) in territories with strong demand for mobility and in rural areas. Trials will be authorized all over France from 2019 onwards. **Source: bit.ly/2Lm80gl**

"Moving on": Are driverless cars necessary?

Anne-Marie Idrac: I don't know about "necessary" but because these technologies are now emerging, in the strategy I lead we talk about "usefulness". They are useful on some obvious levels, such as road safety and traffic management. But they also have a deeper, more social value, which will depend on regulations and economic models. They provide us with the opportunity to reexamine mobility policies. As can be seen clearly from the citizens' debate, these technologies bring a new, more acute perspective to certain questions such as the use of space, ownership models, vehicle use, the transformation of cities, and so on.

What are the main economic issues?

We first need to position our industries and services on the world's competitive stage, with a French and European approach built on safety, progressiveness, and taking all forms of use into account. Then, we will need to invent the business models. There will several, some of which will be entirely new. Purely individual vehicles will be rather upper-range at the outset, initially used to drive on expressways and in congested areas. The most promising ideas concern shared uses. For example, several carmakers have acquired chauffeur-driven car hire companies, thus repositioning themselves as service providers. In many trials, stakeholders such as component supplies and the manufacturers of vehicles and systems, public transport operators and the digital community are all working together.

There are also large hospital complexes and business parks looking to test driverless vehicles to facilitate movement around their sites. For local authorities, driverless cars could lead to a renewed public service offering.

These vehicles really appeal to our imagination. In your view, what role can they play?

It's a highly important topic. They cannot be developed if they are not accepted by society, which is why safety is of utmost importance, along with the issue of personal data. There is the "techie" imagery, but it's not positive on the whole. In fact, it is largely based on level-5 automation, where no human intervention is required at all – but that won't happen for a long time yet. There are also many visions of social take-up of all the technology promises and of renewed mobility policies. We need to build on these expectations while taking on-board the reality of the technological steps to be taken. It will be decades before taxis drive themselves over to pick you up in front of your apartment block or wherever you happen to be, whatever the weather. For many years to come, vehicles will run along pre-defined itineraries with none of the unexpected situations we can be confronted with at the wheel.

How does the arrival of driverless vehicles tie in with climate goals?

In France, the aim is to make clean mobility affordable for all and to develop innovation. In our country, we equate autonomous vehicles with electric mobility, but that's not the case everywhere. Again, shared vehicle use is crucial, especially when addressing the challenge of urban congestion. In that respect, the emphasis is not on technology but on public policies on traffic control, parking, infrastructure, and so on.

How are the trials going?

Trials are being run all over the world. There are around forty in France alone. We are launching a new experimentation plan that will take things forward from a technical viewpoint while multiplying usage scenarios.

Participants in the debate spoke about their fears for jobs. What can you tell them?

The first question concerning jobs is: do we have enough people working in artificial intelligence? Then there is the question of how current industry jobs will evolve: for example a fuel-powered car is not manufactured or maintained in the same way as an electric vehicle. Finally, we need to think about the future of fleet drivers. Professionals are reflecting on the changes to these jobs. Things will move in two directions: supervisory positions, such as those seen on automated metro train lines, and other jobs devoted to service quality and user support.

Citizens also have questions about personal data protection. What about that?

They are right. Again there are some positive and negative visions. In Europe, data is protected by the GRPD ⁽¹⁾

"Shared mobility is a distinctive characteristic of French industrialists. The self-driving vehicle is one of its possible forms." **ANNE-MARIE IDRAC**

and in France by the CNIL (national data protection authority) and its special autonomous vehicle conformity pack (2). Nonetheless, data sharing is a real technical and economic issue for manufacturers, component supplies, insurers and the like. Data provides input for public policymakers and also interests the police forces, highways agencies, local authorities, etc. Measures on data and data access will be included in Transport Minister Elisabeth Borne's draft law on mobilities.

Citizens believe self-driving vehicles must be affordable for as many people as possible. Will that be the case?

As I have said, in my view, the biggest developments will not involve individually-owned cars, but shared cars. For both technical reasons such as marked-out routes, and economic reasons such as cost sharing, and because of the authorities' commitment to "smart mobility". In some cases, self-driving vehicles will form part of taxpaver-funded initiatives. Others will be part of private schemes, like the present-day ride-sharing or chauffeur-driven hire services.

(1) goo.gl/KUN9jX

GRPD : General Data Protection Regulation (2) goo.gl/wdvXXi

(3) Paris transport authority(4) French national railways

Anne Marie Idrac.

former Secretary of state for Transport, former chair of the RATP (3) and then the SNCF ⁽⁴⁾, is the senior official charged with steering national policy on self-driving vehicles. Last May, she set out a national industrial strategy in this field. She also has established the connection with artificial intelligence strategy, especially in the areas of competences and training. She is now jumpstarting trial schemes, of which there have been around forty in France so far. Finally, she works within the constantly changing European and international framework. This roadmap also includes a component on coordination with the relevant ministries, i.e. the French Home Office, and the Transport, Economy and Digital ministries.

Sharing a jointly-owned vehicle, no longer owning your own vehicle: 77% of participants would be ready to change how they get around.



Ready to change? Go on then!

How about giving up car ownership? When asked about this key point, debate participants appear willing to change.

wning your own car: this is the dominant model for a huge majority of drivers. The people who took part in the debate are cut from the same cloth. 92% of them have a driving license and 83% of them own a car or have access to a car at home; 19% of them borrow one regularly. 59% of them use the car alone or with a single passenger on a daily basis. Just over a third prefer to use public transport and as many walk or cycle. We find car-pooling and ride-sharing much lower down the rankings, with 13% of the participants' vote.

Let's change tomorrow?

However, one of the key takeaways from the debate is that private car ownership is no longer a *sine qua non* condition for participants. When asked, "*In the near future*, would you be willing to give up ownership of a private car (if you currently own one or intend to acquire one)?", 44% of the responses went for "yes, in any case we need to shift away from the car as the main form of transport, mainly for environmental reasons". The response "yes, if I can see the benefits (financial, service quality)" earned 43% of all responses. However, 25% of participants answered "no, I can't see any satisfactory alternative today". 5% are categorical: "no, under no circumstances".

The shared vehicle solution

What changes in behavior are expected with the introduction of driverless vehicles? 55% of participants in the debate answered that they "would be more likely to opt for a shared vehicle made available by an authority, a company or private individuals, against payment". 40% said that they would no longer own their own vehicle and 37% of them would opt for ride-sharing. Only 23% of them said that they would not change their habits. In other words, 77% of respondents would be willing to change how they get around.



55% of participants in the debate answered that they would be more likely to opt for a shared vehicle made available by an authority, a company or private individuals.



Jacques Richier, CEO of Allianz France

"In our age of accelerated innovation, we are all aware that mobility will mean more than just individual car ownership

in the future. There will be some radically new ways of getting around which *a priori* will come with environmental and social benefits with a wider choice of alternative, multiple and shared means of transport."

WHAT WILL YOUR SELF-DRIVING VEHICLE LOOK LIKE?

wapping your own set of wheels for a shared or jointly-owned vehicle might be okay, but not at any price. First and foremost, the vehicle has to be able to pick up passengers within ten minutes, at any point within the territory. If it can't, the principle of freedom of movement takes a serious knock. "I'm worried I'd lose my freedom," said one participant at La Rochelle. As such, future self-driving vehicles should supplement or complete the current public transport offering to make local networks denser. They would make it possible to get round in off-peak periods, when there is no other transport solution, and to connect places that are hard to reach at present. People over 65 are especially interested in this service.

Reliability: the key

Reliability is a central concern. Participants insist on the reliability of the technology and related services (booking options, call points, areas served and connections) and the quality of the vehicle (its impact on the environment, cleanliness and so on). It is inconceivable for them to use a motor vehicle without being certain that things will run smoothly. In that respect, participants would feel more confident if "a service can be contacted at all times, like in elevators (64% of votes), or if driverless vehicles were fitted with an "emergency stop system" (62%) or if there was "the possibility of regaining control and driving the vehicle" (33%).



Mr Bean has a particular way of understanding driverless vehicles...

A modular vehicle

The first condition facilitating the use of driverless vehicles is thus user freedom. This implies full reliability and availability of the vehicle and the use of these multiple services. The vehicles of the future must be able to meet requirements, even if this means reinventing the space inside the vehicle. In the creative part of the debate, people mentioned screens on which to watch films and even showers and kitchens! The future self-driving vehicle must be able to adapt to every situation to offer citizens a better quality of life. In other words, it must

be modular. Different sizes of vehicle must be available. The interior should be adaptable to create space for working, sleeping or browsing the internet over a wi-fi connection, and it must be accessible to people with reduced mobility. Above all, it must be available to everyone, wherever they are, at any time.

"The self-driving vehicle has to improve quality of life by being less tiring, less restrictive, with shorter travel times, less environmental impact and so on." A PARTICIPANT IN RENNES MÉTROPOLE

7



The people who took part in the debate hope that driverless vehicles will help people with disabilities get around more easily.

Individual and shared benefits

Looking beyond safety issues, converting driving time into free time is seen as one of the main individual benefits of driverless vehicles. For society as a whole, equality of access and the environment are the leading requirements.

est and relaxation feature high among individual expectations from daily journeys on-board terrestrial driverless vehicles. When asked: "On-board a driverless vehicle in the near future, what will you be able to do that you can't do at the moment?", 63% of debate participants said they would make the most of their journey time to relax, close their eyes, admire the landscape, read a book or watch a film. 34% of the votes indicate that it would make for a more comfortable journey than on conventional public transport, with the certainty of

"Safety, the key concern of future self-driving vehicle users" Philippe Dewost (Leonard)

Leonard is the Vinci group's foresight and innovation hub. Philippe Dewost, its director, states that "to be accepted, the self-driving car has to offer even greater levels of safety than conventional motoring solutions. We will be less tolerant of robot errors than we are of human mistakes. To reach the required levels of reliability, infrastructure could provide redundancy for the on-board safety systems." finding a seat, a feeling of safety, less waiting time and fewer connections. For 23% of the respondents, driverless cars would provide the opportunity to get to know other people and chat with them, or to call family and friends.

Safety first, then free time

Looking beyond day-to-day travel to longer trips, again entertainment appears important. Being able to read, watch a film, browse on their smartphones or play with other passengers are ways of passing the time suggested by 66%. Then comes the possibility of taking a nap (51%) or using the free time now they don't have to drive to enjoy the landscape (38%). Finally, a minority of participants want to use that time to get to know other people and chat with them, to call family and friends and to send messages (25%). These replies can be compared to the progress expected from landbased driverless vehicles: firstly, an improvement in road safety (53%), followed by having more free time to do things other than driving (48%). Driverless cars therefore appear to combine the "delegated driving" aspect found with public transport and taxis, with a more "intimate" aspect e.g. being able to sleep, call loved ones, or play. On the other hand, driverless cars are not really seen as a "mobile office": they are expected to reduce working time (20%) but not to increase the timeframe allocated to work and to work more: 16% mention this, but 10% reject the idea.

Changing expectations

An Odoxa survey ⁽¹⁾ was conducted on the topic of self-driving cars in May 2015. When asked "What are the main benefits of self-driving cars?", the 999 people interviewed placed the response "time to do other things during the journey" in 5th position (17% of votes). The first four positions were occupied respectively by the following responses: "an end to human error" (40%); "dropping off passengers before parking automatically" (32%); "an end to traffic jams thanks to optimized journeys" (31%); "better vehicle maintenance thanks to selfdiagnosis" (19%).

During the debate, 48% of participants answered that the benefit they most expect is more free time during journeys.

Safety and fairer access

Looking beyond the issue of dayto-day travel, participants were asked about the improvements that driverless vehicles could bring to their daily lives. Safety is the most frequently mentioned factor (59%), followed by the introduction of new mobility solutions (49%), easier travel (40%), a reduction in the "mobility" budget (38%), and time-saving (38%). Conversely, *"lack of reliability"* emerges as the main concern (48%) when it comes to the adverse effects on everyday life.

From a social viewpoint, the main challenge emerging with the introduction of driverless cars is to reduce inequality with regard to mobility. As a priority, participants hope that this new transport solution will help people with disabilities and the elderly get around (73% of votes). Furthermore, the solution must be affordable for all, all across the country (48%). Overall, "driverless vehicles could bring a significant *improvement to mobility (...) it's very* stimulating to see that participants see things this way," observed Tom Vöge, policy analyst specializing in sustainable public transport with the International Transport Forum.

The need for a strict environmental framework

The environmental issue is also important. Environmental protection ranks third among the expected benefits (41%), after access to mobility for all (57%) and "smoother traffic flow and travel" (44%). When asked about the role of the state, 48%of people who took part in the debate consider that it must "set out some stringent rules for the environment". The roll-out of self-driving vehicles may also be an opportunity for France to "develop and affirm international leadership in the field of more ecological mobility systems". Meanwhile, job losses are the biggest fear when it comes to driverless vehicles, followed by environmental damage on a global scale in second position. The creative part of the debate confirmed this concern. The idea of completely replacing the existing vehicle fleet with driverless vehicles is deemed "environmentally unsustainable". In addition, participants ask which energies will fuel the vehicles? In what proportion? What plans are there to recycle the materials?

(1) bit.ly/2JuHrDJ



Interview with Sylvie Landriève, codirector of the Forum Vies Mobiles research institute on future mobility



What do you take away from this debate?

Citizens don't want the selfdriving vehicle to be merely a luxury product that just adds to current

vehicle traffic. Nor are they keen on technology for technology's sake. They would rather see a more farreaching change in how our mobility system is organized. They would like to see more inclusive, safer mobility forming part of a more pleasant living environment.

How can this change be implemented?

Citizens hope to see the public authorities involved. For example, to meet their expectations, the arrival of self-driving vehicles should enable a hybrid system of shared. driverless vehicles. Wherever possible, this would replace individual car use and complete the public transport offering. City centers could thus be freed of congestion and periurban and rural territories would enjoy better links. Citizens are willing to change their habits to make this happen. Selfdriving technology could encourage them to relinguish three things: driving a vehicle, owning a vehicle and solo car use (travelling alone in their vehicle).

What would be the priority after that?

Self-driving technology is just one of several tools that could enable a more sustainable mobility system. We are working with researchers, practitioners and citizens to come up with others. They can express their views on our website: Forumviesmobiles.org

Jobs and data: sensitive issues

Citizens' concerns are mainly about the loss of certain professions, such as taxi drivers and chauffeurs, and the use of personal data.



Citizens will be particularly vigilant as to the use of their personal data.

59% of participants would like to see training programs for all the jobs affected and for the new jobs that will emerge.



he main concern is over employment. The citizens who took part in the debate are worried about likely job losses or, at least, concerned about how jobs will change. What will happen to taxi drivers, delivery staff, truck drivers, driver instructors and examiners? 59% of participants hope the public authorities anticipate "changes to jobs and undertake a training program for all the jobs affected and for the new jobs that will

emerge". There is *"a need to anticipate and train, and that starts today,"* pointed out one participant in Rennes.

The sensitive issue of data

The risk of inappropriate use of personal data stored by driverless vehicles is one of citizens' biggest worries. *"The data must not be used without their consent,"* insist participants at the debate. Any use without consent would be seen as an *"adverse effect on daily life resulting from the introduction of driverless vehicles"* (40% of votes). Likewise, participants would like to see the state regulate personal data use. So who should have access to the data generated by driverless cars? According to participants, "users themselves should be able to choose who has access to their data for each journey and they should have access to their own data" (49% of votes). Then we have "public authorities and public research organizations. in the form of anonymized data" (37%). Some of them even think "no data should be accessible" (18%), while 20% chose: "users should be able to choose to sell their data to pay for all or part of their mobility service use, or to keep it private".

Open data?

Finally, "private companies who develop the software, in the form of anonymized data" could access the data, according to 14% of participants. The prospect of "open data" would not solve everything. The idea of the data being open to all, even if anonymized, is subject to debate: 21% of participants are favorable to this, while 13% are opposed. Another area of controversy is granting access to "private companies, if consumers agree to it and if it can finance the mobility service". 7% of participants are for, but 10% against.

"Companies gather tons of data"

What are the issues around personal data? What do the current trials tell us? We put these questions to Tom Vöge, policy analyst at the International Transport Forum (ITF).



40% of participants would like to see the state regulate personal data use.

Tom Vöge : "Generally, most of the data collected by transport services is geotracking data: we know that an identifiable person was at a given location at a given time and then travelled on to another location. So it

is very personal data. Most of the people concerned would agree on it being protected, either to maintain their privacy or for fear of cvbercrime or terrorism (...). In fact, you are the one that produced the data, while sitting in the car and choosing to go to a certain destination. So, you could argue that the data belongs to you and therefore you should be asked whether or not you agree to it being used.

Tom Vöge: Tons of data

On the one hand, the data certainly needs protecting but on the other, it is very valuable and many companies are now turning data collection into a real business. So this data can be monitored and vetted. It is useful for placing advertisements, planning

Yellow line

According to an Odoxa survey of 999 people (May 2015), 23% of respondents think that personal data protection is the main restriction on widespread self-driving vehicle use. 41% of the people who took part in the citizens' debate (January 2018) think that the introduction of driverless vehicles would have an adverse effect on their daily life if their personal data was exploited.

trips, and so on. In that respect, we can ask a couple of questions. The first: *"should a law or a mandate govern who has access?"* The second: *"should companies, who store tons of data, be allowed to sell it?"* There are other issues surrounding data anonymity. In reality, it is not that complicated to re-identify data. Very often, anonymizing doesn't work.

"Data: be careful "Personal data is necessary in upholding service quality but it must not be sold and it must be with advertising use". possible to delete it. People must be able to select (La Rochelle) which information (other than their identity) is stored". (Sophia Antipolis) "You have to ask us to use "How do we our data. I'm pessimistic "We will be tracked, guarantee about data protection". even if we switch off privacy?" (Conflans-Sainte-Honorine) the GPS". (Toulouse) (La Rochelle)

Strengths of the debate approach: information, support and multiple viewpoints.

At each table, a facilitator assisted the participants in their discussions (here the debate at Conflans-Sainte-Honorine, in the urban community of Grand Paris Seine et Oise).



Different profiles were brought together around each table at the debate. Each person had time to express her or his views (here in Rennes).





Overview of the debate room (here in Sophia Antipolis).

Last January, 361 people from an array of different backgrounds took part in the national debate on driverless vehicles. A look back on a ground-breaking experience run simultaneously in five regions.





Introductory videos were shown before each sequence of the debate, to provide participants with information on the topic (here at La Rochelle).





On average, 80-100 people attended the debate at each site. They worked in round table sessions to take their discussions further (here in Toulouse).

Spotlight on the creative sequences

The discussions let participants react to various scenarios for the roll-out and use of driverless vehicles and put forward their own. The conditions under which driverless vehicles could serve individual and collective concerns were clearly expressed.



Screenshot of one of the introductory videos. Go to www.debatcitoyen.fr

n the creative sequences, the citizens present had the opportunity to react to three scenarios for the use of driverless cars. An *"entirely individual"* scenario, where current vehicles are replaced by driverless vehicles. An *"all shared"* scenario, where all vehicles are shared ; no one owns a private car. Finally a mixed scenario where both models exist side-by-side. The main benefit of the *"entirely individual"* scenario is vehicle availability – and thus guaranteed freedom. This implies improving the individual car to

A diverse panel of laypeople

A total 361 people took part in the citizens' debate in Toulouse, Rennes, Sophia Antipolis, Conflans-Sainte-Honorine and La Rochelle. Apart from in Rennes (52%-48%), the panel was male-dominated (2/3-1/3). The 45-64-year age group was over-represented compared to the French population as a whole (38% versus 26%). Young people aged 18-25 were represented in a higher proportion than the national average (9% versus 5.6% for 20-24 year-olds, Insee). The other age groups were in line with the French population: 25% of participants in the debate were in the 25-44 age group and 20% were over 65. 35% are from a medium-sized town (10,000-100,000 inhabitants) and 31% from a town with over 100,000 inhabitants. People living in rural areas were over-represented: 5% live in a rural area compared to 1.7% of the French population. Finally, 70% of them had little or no knowledge of the topic.

make it more comfortable, private, time-saving, etc. The ensuing high price of this kind of vehicle would undoubtedly widen social inequality. And a scenario like this would not reduce the environmental impact of cars: the number of vehicles on the road and congestion risks would not fall. The "all shared" scenario would reduce the environmental impact of vehicle traffic and improve quality of life in cities: shared cars would mean less traffic and less pollution. This scenario promises access to mobility for all. The drawbacks would be the need to share and the loss of personal space, less freedom of movement, flexibility and spontaneity.

Daily issues, tourism, aerial vehicles

Ultimately, the mixed scenario is favored by participants: with shared vehicles in the city and individual vehicles in the countryside. We also need to think about the likely long-term mix of between manned vehicles and self-driving vehicles.

Another exercise gave participants the chance to put the day's discussions into the context of their own daily routine and life in their region. They were able to imagine their own scenario, solve a problem or raise a question. Citizens from Grand Paris Seine et Oise imagined the life of three people in 2030: a young person, a person with disabilities or an elderly person, and one of their relatives. In Toulouse Métropole and Sicoval, they carried out a four-dimensional experiment, looking at the city center, the countryside, a hybrid area and aerial vehicles. At Sophia Antipolis, participants worked on two scenarios focused on tourism and people who do not own their own vehicle. Participants in Rennes Métropole reflected on the mobility issues they currently encounter and came up with solutions involving self-driving vehicles. Those in La Rochelle were able to talk to specialists on this issue and share their questions with them.

Autonomy and control: United States perspectives on driverless futures.

What happens when you give citizens the chance to frame questions concerning emerging technologies such as autonomous vehicles?



Mahmud Farooque, Associate Director, Consortium for Science, Policy and Outcomes (CSPO), Arizona State University

***ECAST** is a network that brings together academic research, informal science education, citizen science programs, and non-partisan policy analysis to engage citizens on science and technology policy issues in order to inform decision-making. nstead of working with a client who had preconceived questions for citizens, a small cadre of the Expert and Citizen Assessment of Technology network (ECAST*) set out to learn what the concerns and hopes that people in rural Cumberland, Maryland and urban Baltimore, Maryland have about the push for autonomous vehicle adoption in the United States.

We met with 12 people in Cumberland and 12 people in Baltimore on two consecutive weekends for three hours of conversation. People from all walks of life that use a diversity of transportation types showed up to share their ideas. It was surprising to observe that several of our participants didn't own cars or didn't care to drive, especially in Cumberland. People told us about their experiences with buses, cycling, walking, driving a personal car, trucks, taxis and many other forms of mobility. Conversations about their personal experiences with current mobility served as a springboard into discussions about their hopes and concerns about autonomous mobility. The conversations exhibited a striking complexity that showcased people's ambivalent feelings about driverless futures. For example, several people that couldn't drive due to a disability, wouldn't drive due to anxieties, or didn't own a car showed up at the focus group expressing their hopes that autonomous vehicles would provide them with mobility they don't currently have. However, they also expressed concern that these wishes for increased mobility may not come to fruition due to affordability and lack of appropriate infrastructure to support autonomous vehicles where they live.

Rural and urban

People in both Cumberland and Baltimore imparted a variety of common concerns found in the popular media, academia, and the policy world such as cost, safety, privacy, security, and job loss. But there were differences between the two locales. Cumberland residents talked about ways autonomous technology could improve the safety of freight trucks and provide more opportunities to travel to new places, but were concerned about how the technology would handle mountainous roads and treacherous weather. Whereas in Baltimore, participants conversed about individual rights, economic concerns, privacy and security. But some of the most compelling and less obvious concerns of the conversations centered on how people thought about their relationships to the new technology. For instance, a firefighter related that he wanted to know about the potentially new designs of autonomous vehicles so he wouldn't be put in harm's way during emergency evacuations of vehicle accidents. Others wondered what control they would have during emergency situations, such as the need to rush to the hospital to deliver a baby, in a fully autonomous system that controlled the speed of their vehicles. Those in rural Cumberland wondered how soon they would benefit from the technology, as they believed the early adoption opportunities would be in the cities first. Overall, while people imagined optimistic opportunities for driverless futures, uncertainty about how a transition to an autonomous society would help them and affect individual liberties was a strong undercurrent in both Cumberland and Baltimore.

Tomorrow, a global citizens' debate

ot a day goes by without another big announcement on driverless vehicles. Companies are forging some unexpected alliances to experiment with these new technologies in pilot areas. Governments are refining their strategies (see page 15), such as the European Commission that sets to increase the amount of research devoted to the future of mobility. The United States Department of Transport is launching consultations to feed a federal strategy, while several states are developing new legislation to encourage the large-scale roll-out of self-driving vehicles from which they expect substantial economic benefits. In China, the future of mobility is sparking some cutting-edge innovations. In short, both the public and private sectors are mobilizing resources, not wanting to miss the opportunities that this evolution will bring. However, all too often, they fail to get citizens on-board as they embark on their journey.

As the world prepares for the autonomous mobility revolution, there remains an astonishing paradox: on the one hand, the signals sent out by the industrial and political stakeholders are stronger than ever but on the other, there is no clear vision of how and when autonomous mobility will actually become part of our lives. It is a vast subject that raises questions of an ethical nature, of social acceptance and societal impact, and one that includes some blind spots, the size of which is only equaled by the extent of the announced changes will affect all of humanity!

The uncertainties surrounding these new promises are expressed on both the global and local levels. And it is precisely because things are happening at these two different scales that now is the time for an international citizens' debate, a vital prerequisite to this kind of change to our lives. Each and every one of us can provide valuable expertise concerning the choices to be made. After the pilot stage involving five French communities, we now need to listen to citizens from cities and rural territories across Europe, Asia, and the Americas.

Here at Missions Publiques, we are working closely with our ECAST partner (see page 15), the Consortium for Science, Policy & Outcomes (CSPO) from Arizona State University, and inviting citizens, industrialists and public decision makers to form a coalition to ensure that public and private research, innovation and service strategies take citizens' expertise into account.

Public and private partners, along with institutions, governments and research bodies from different countries, will pool resources to enable a debate on an unprecedented scale. From January to July 2019, several thousand citizens representing the broad diversity of the European and North American population will come together to share their views. They will express their wishes, their fears and their red lines as regards autonomous mobility. And together, they will draw the outlines for future mobility at the local level and on a wider scale. In 20 years' time, we will look back on 2019 and remember that an extraordinary dialogue took place, prompting changes to strategies and policies, for the benefit of all.



The Waymo vehicle comes from the work on autonomous mobility launched by Google in 2009.



The expected role of the public authorities, the private sector and research

The state, local authorities and the industrial sector are called on to shoulder their responsibilities and provide a framework that is acceptable to citizens: yes to driverless cars but not on a purely free market basis.

> nticipate and regulate: the authorities and the state are clearly expected to get involved in the issue of driverless cars. Here we look at the capacity of the public powers to manage the change in the mobility system. Citizens are also looking for a response from the authorities: although the

new mobility service is designed by researchers and industrialists, they demand regulation. They want things to be controlled and not left to the free market.

General interest

For 63% of people involved in the debate, the state should, as a priority, guarantee a political framework to ensure that the driverless vehicle revolution

The challenge: safety and smoother flows

Julien Villalongue coordinates foresight work focused on self-driving vehicles at Leonard (Vinci). He points out that "when self-driving vehicles are used in simulations in homogeneous environments, they prove to be very capable. However, in an uncertain environment, where different types of vehicle and driver exist alongside one another, driverless cars have still to prove their capability. During the period of transition from conventional forms of mobility to self-driving vehicles, roads could make a decisive contribution to safety and ensuring smoother traffic flows".

benefits everyone equally. "With no regulatory framework (...), we will not achieve this," confirms Tom Vöge, political analyst and specialist in sustainable public transport at the International Transport Forum (ITF).

Half the panel thinks that the state should lay down some stringent environmental constraints and 40% would like the use of personal data to be regulated. "The state should encourage initiatives and experimentation in the territories and take on-board the feedback," is an idea that obtained 32% of votes, nearly as many as the proposal stating that "the state should support the transformation of French industry and economic stakeholders, so that the development of driverless vehicles benefits the French economy" (30%).

There is also hope that the state will "remain vigilant and responsive given the potential negative effects of driverless cars (urban sprawl, increase in the number of vehicles on the road, etc.)" (29%) but also that it will "support research and development to speed up change" (28%). Finally, participants want to see a legal framework for the new mobility system, one that operates at local level, as is the case for public transport (26%).

Accelerate... or observe

Local authorities are seen as the best-placed stakeholders to run driverless vehicle trials, with areas with high mobility requirements given priority. 71% of participants voted for this proposal.

Local authorities may be seen as the legitimate coordinator for these trials but there is some disagreement about the idea of speeding up the roll-out of driverless cars.

33% of participants would like their authority to "speed up the introduction of driverless vehicles to make their region a pilot region", while 28% would prefer "to observe the initial trials and move \rightarrow

"Half the panel thinks that the state should lay down some stringent environmental constraints"



During the citizens' debate on driverless vehicles

\rightarrow forward cautiously".

What would be the role of local authorities if driverless vehicles were rolled out on a large scale after a trial period? For the people involved in the debate, they would play a major role. They would be required to incorporate driverless vehicles into a broader mobility offering, which they would manage for their territory, with a number of criteria to be met such as connections to public transport, adaptation of the city and its infrastructure, regulation, pricing, etc.

Changing trends

In 2014, special Eurobarometer survey #427 questioned 27,801 people in 28 countries. 35% of them accepted the idea of boarding a driverless vehicle. Today, 65% of participants in the French citizens' debate accept this, 44% of whom would board *"without hesitation"* and 21% *"out of curiosity"*. An informed debate leads to a different position and opinions on driverless cars have undoubtedly evolved in four years.

bit.ly/2xCy7TA

Driverless vehicles fleets managed by citizens

Expectations from local authorities are not limited to organizing transport and the city.

They are also expected to fulfill the role of watchdog. Half of all participants hope that they will inform people "as objectively as possible about the challenges, achievements, opportunities and threats" that come with the introduction of driverless vehicles.

37% of them "want them to strictly monitor the impacts of this technological revolution on the environment and on human health". 59% of participants hope the public authorities forecast "changes in employment and begin a training program for all the impacted professions and the new professions that will emerge". Finally, the role of fellow citizens is also emphasized. Users must be able to provide feedback to adapt the service, then participate in the "community management" of small fleets, on a collaborative basis. And the roll-out of driverless cars has to

The Grand Paris Seine & Oise urban community,

Ariane Group and the Mov'eo competitive cluster are set to trial a self-driving shuttle with a dozen places on-board. All three partners have signed a charter on this innovative public transport project. A smart, greener, driverless, all-electric vehicle will first be tested by employees within the aerospace company's grounds in Les Mureaux near Paris. If the study and pilot phases prove conclusive, self-driving shuttles could be introduced in the urban environment, to serve stations, for example. The goal is to commission the system to coincide with the introduction of the RER Eole suburban train connecting Poissy and Mantes by 2024.

"In Sophia Antipolis,

during a trial of the Easymile EZ10 shuttle in 2016, 88% of users said they felt safe. 60% of the testers adopted the shuttle for daily use over the two-month trial phase. 68% of them would have liked the service to continue after the trial and were reassured by this form of transport's contribution to the city." Sylvie Ponthus, head of mobility infrastructure for the Sophia Antipolis urban community.

be approached on an "inclusive, social economy model to prevent the GAFA type monopolies" (Google, Amazon, Facebook, Apple), says one participant.

"THE EMERGENCE OF THE CITIZENS' VOICE"

The results collected on the day of the debate have been analyzed in-depth and the various partners have given their reaction.

> irst of all, "the value of this kind of approach lies in the emergence of the citizens' voice", states Eric Chareyron, director of foresight, lifestyles and regional mobility at Keolis. Our partners all welcomed the initiative, for example CEREMA, which appreciated "the clear quality of the discussions throughout the day". "What stood out during the debate is the interest that citizens show for an object that barely

exists yet", points out Arantxa Julien, from the French Ministry for the Ecological and Inclusive Transition.

The role of public stakeholders was the subject of much debate on the day. This is something the partners have taken note of. *"For us, it is important to hear what people have to say, so we can better take on-board their expectations when shaping ministerial policies"*, continues Arantxa Julien. Chloé Marin, from the Development Economy Transport research unit (LAET), is also delighted that *"public policies and the state are dealing with these issues"*.

A law on mobilities

63% of debate participants believe that the



state must create a political framework to ensure that the ground-breaking technology benefits everyone equally. The public authorities have to "guarantee territorial and social equality for access to mobility", confirms CEREMA. "This concern is now central in our policies: the right to mobility and territorial equality are the founding principles of the framework act on mobilities that we are working on", reiterates Arantxa Julien. This law is also mentioned by Olivier Trébucq, Head of Strategic Partnerships at Inria, the digital research institute: "These approaches are only of value if they are integrated in the broader framework of the mobility act".

The role of the local authorities

"Regulation (of driverless vehicles) will also require action from the local authorities. They are now key partners in trial schemes. Their role is frequently mentioned by citizens and will be supported by changes in legislation", adds Arantxa Julien. However, everyone agrees that the local authorities cannot lead the transition to self-driving vehicles alone. Éric Charevron highlights the advisory role of Keolis, one of the world leaders in public passenger transport. "The challenge lies in successively forecasting and anticipating the work required for self-driving shuttles. Authorities need to hear the truth as we support them," he emphasizes. The same logic is applied by CEREMA, which says it is necessary to pay attention to the authorities' needs and to develop *pragmatic* and operational assessment methods for them.

The myth of 100%-safe travel

French road safety agency Prévention Routière and its think tank Unir, has issued a few reservations concerning the participants' responses on road safety. 54% of them think that the introduction of driverless cars will reduce road accidents. But "it is dangerous to feed future users the myth of 100%-safe travel. The first trials, especially in France, are taking place under heavily regulated conditions, which are far removed from the often chaotic reality of *city traffic.*"The question of personal data and its use, which is an issue for many participants in the debate, is taken seriously by Leonard (see text box on page 17). Some of the data generated by driverless vehicles may be "of general interest (traffic, density, braking, road surface quality, temperature, humidity). The state could make use of it." What matters is defining which data can be or cannot be used, by whom and under what conditions.

Participants in the debate at Conflans-Sainte-Honorine

Responsibility: the insurers' role

o will be responsible if there is an accident? This kind of question was raised regularly during the discussions.Indeed, if a self-driving vehicles causes an accident, who will shoulder the responsibility?

Should the damage caused by a self-driving vehicle be covered by the vehicle's owner, manufacturer or user?

When asked about this, the debate participants mainly suggested the vehicle's owner.

However, 38% of them think that if there is a fault, it is also the vehicle manufacturer's liability. In this respect, the current system of insurance seems to suit the participants.

The fact that the vehicles are self-driving does not really change the rationale of insurance policies.

59% of participants thinks that "the vehicles should be covered by insurance and the owner therefore held responsible for the journeys made". 48% of them specify

that it is "the responsibility of the owner – whether a private individual or service provider – to take out the necessary insurance coverage".

What about 'older' vehicles?

The third option would be to individually insure all citizens for all their journeys. Hence, if they were involved in an accident caused by a self-driving vehicle or a vehicle they owned, their own insurance would cover them.

The insurance system will also need to change for conventional (non-self-driving) cars.

Will insurers continue to cover conventionnal cars if they are ultimately considered to be more accident-prone? This is a real question. "Will insurance firms continue to insure old (more accident-prone) cars?" A participant at Sophia Antipolis

"Insurance policies will have to change along with the profession of loss assessor." A participant at Sophia Antipolis

"Allianz France believes that

48% of participants think the vehicle's owner should provide insurance coverage



Self-driving car trial in 1969.

insurers have a key role to play in the development of sharing economy models. The insurance company decided to support new forms of use and the changes in collaborative consumption patterns early on, especially in the realm of sustainable mobility. Since 2014. Allianz France has been a key partner of a number of major stakeholders in the sharing economy, such as Drivy and Cityscoot, providing them with tailor-made solutions to meet their specific requirements for services, coverage and compensation. Insurance is a sign of confidence for users and is crucial in standardizing these new peer-to-peer economic models. Generally speaking. insurance is available from the sharing service and covers the user consuming the service, at no additional cost. For example, Allianz France devised a customized agreement for Drivy, meeting the specific requirements of this type of shared peer-to-peer use. When hiring a vehicle, the driver is not covered by the vehicle owner's insurance but by Drivy's own policy instead, so the owner is not required to pay the excess in the event of an accident".



URBAN AERIAL MOBILITY, AN ALTERNATIVE TO ROAD TRANSPORT?

Several unmanned aerial vehicle prototypes are being tested across the world. Citizens mainly think that these vehicles could be useful in emergency situations. mention limiting road accidents (25%), a reduction in inequality in terms of mobility (22%) and shorter travel times (19%). Overall, 54% of participants think that the emergency services should benefit. 37% think that these vehicles should benefit all but "gradually, starting with the priority services and later the general public".

What about noise pollution?

Among the fears expressed about the use of this kind of service, the financial barrier comes out on top (33%). Next comes noise pollution (29%), the loss of privacy for homes flown over (27%) and the risk of a negative impact on landscapes (24%).

"Unmanned aerial vehicles could create noise and changes to the landscape. Under what conditions would vou consider this acceptable?". When asked this question, 45% of participants replied: "if there is a limited number of pick-up points". Followed by these responses: "if the flying vehicles stick to predefined itineraries" (42%), "if there is a restricted number of flying vehicles in circulation" (38%), "if there is a clear impact on congestion on the streets" (20%), "if journeys are of a minimum distance (20-30 km)" (15%) and finally "if there is a relatively high number of vehicles and pick-up points so that everyone can have access" (11%).

erial mobility (with or without a pilot) could be an alternative to terrestrial mobility (train, bus, car) in the future. What does that inspire in you?"When asked this, 66% of votes were positive, with 54% of participants saying "it would really improve travel: I'm in favor but subject to certain conditions". The idea that "flying is one of humanity's dreams come true: I'm entirely in favor of it" gathered 12% of the votes. On the other hand, 28% of opinions were unfavorable, pending further information. 15% said they were "completely against it".

When the participants were asked about the expected benefits, the emergency services obtained the most votes (51%), followed by a reduction in traffic congestion (42%) then a boost to the attractiveness of more remote territories (34%). Next, people

Mathias Thomsen, general manager (VP) for urban aerial mobility at Airbus, on the public's hopes and fears regarding unmanned aerial vehicles.

How would you describe the public's current views on unmanned flights?

There is actually not much opposition, but there are a number of conditions. For example, people would like a human safety attendant on-board at the outset, as was the case for elevators. When the time comes for unmanned flights, they want a way of regaining control and communicating with ground services.

What are the most common misconceptions?

That older people are more opposed to this kind of technology. In fact, many of them acknowledge the benefits that it could bring by increasing mobility. Another misconception is that unmanned vehicles could be less safe. Most people understand that we have reached a point where machines can outdo humans and improve flight safety. Self-driving vehicles are key to the evolution of urban aerial mobility. *Extract from an interview for Airbuzz magazine.*

DRIVERLESS VEHICLES ON EUROPEAN ROADS

Forty or so trials have already taken place in France. More are planned. There are many others taking place on Europe's roads.



xford is the first UK city to include driverless vehicles in its official transport plan. The city is playing a central role in self-driving shuttle development in the

Next, a European debate!

In 2019, the citizens' debate will go international. European citizens' days will be held over winter 2018-19 in 25 cities and regions in the Union, along with citizens' days in several American states, thanks to the involvement of the Consortium for Science, Policy & Outcomes at Arizona State University. More than 2,500 people will come together to discuss the future of mobility and the introduction of autonomous forms of transport. Several thousand will also join in online. These days are organized by Missions Publiques in partnership with the cities and regions of Europe, the city networks, and scientific and industrial partners. country. In summer 2018, it will roll out a fleet of level-4 autonomous vehicles (on a scale of 1-6 where level 6 equals "full automation, even in difficult conditions"). The trial is scheduled to run for 30 months.

Helsinki at the forefront

Helsinki (Finland) leads the world when it comes to trial schemes, with self-driving minibuses already on its roads. These tests are backed by the European Union and aim to reduce the city's greenhouse gas emissions. The city is also innovating in its approach to governance: it has just set up a new office tasked with studying how driverless vehicles can be integrated into the urban environment.

Several trials are also being run in Germany. One of them will begin in Hamburg in autumn 2018 when the district of Hafencity will benefit from driverless electric shuttles in a four-year pilot scheme. The city's public transport operator Hochbahn is leading this project, known as HEAT (Hamburg Electric Autonomous Transportation). It is run jointly with industrial and scientific partners and with backing from the German government. At the same time, three other tests will be run in the country, and five others in the Netherlands, a dozen in the UK and as many in Scandinavia.

"Digital transformation is triggering some major changes in our organizations and lifestyles. Are these changes determined, in the first instance, by the technological impact or is it instead a matter of social integration in response to new expectations? Using tried and tested methodologies and digital tools, it is now possible to get citizens involved in ongoing innovations by running debates simultaneously on a local and global scale, just like this debate on the future of mobility".

Stéphane Péan, Digital Cities Action Line Leader, EIT Digital



The debate made the headlines!

On the radio, in the print media and online newspapers: the French press showed a lot of interest in the national debate on self-driving vehicles.



collectifs, sur la route, le rail ou l'eau, les véhicules sans chauffeur vont transformer la ville de demain. Comment cette mutation peut-elle contribuer à une ville plus durable et adaptée aux besoins de ses habitants ? Quels aménagements faut-il prévoir ? Comment garantir la confiance et la sécurité des utilisateurs ? Quels risques sont-ils prêts à accepter ?



Accuel > Entestions > Toutes les émissions > La vie en Bleu > Las véhicules autonomes





Des voltures par louient seules, des véhisules par volent, des bus sams chauffeur, des navettes automatiques, adence fiction ou ritalité ? Comment nous étaplacerons no demain ? & Morpgo : Patrice Seunourt

Meggo Patrice Sectors

ec Emmanuel Couet, président de Rennes Métropole, Yves Mathieu, co-directeur de Issions Publiques, et Tom Dubois, du Forum Vies Mobiles

tans les années 70, la science fiction à usé et partois abusé de la volture volante. Certains maginaient que dans les années 2000 nous pourions rouler et voler avec le même étiquie, instaire de s'affranchir partiellement des distances et des embouteillages.

t Debat Citoyen a retweetd

Hugues CLEMENT Bhotchri - 16 févr. Le groupe RATP lance une expérimentation de navettes autonomes au CEA -Paris-Sactav ces fribresse/Pagev/a., #transport Evehiculesutonome



SOCIÉTÉ-ÉCONOMIE

WE DEMAIN

Voitures autonomes : un grand débat citoyen organisé pour réfléchir à la mobilité de demain

Par Sofa Colla I Publié la 21 Novembre 2017

Le 27 janvier prochain, l'agence Missions Publiques organise une journée de débats pour que les citoyens réfléchissent collectivement aux différents scénarios possibles concernant les moyens de transport du futur. Ce débat ouvert à tous se déroulera simultanément dans quatre villes de France.



The citizens' word



"The public authorities must play a regulatory role."

"We are not ready."

"And what happens to our data?"

"Things will probably change very quickly, as was the case with the mobile phone."

"The introduction of the selfdriving car has to go hand-in-hand with research into new sources of energy."

"I can't wait for it to happen."

"A totally robotic society is not desirable."

"People with disabilities and the elderly could really benefit from self-driving cars."

"If the cars reverse park themselves, I'll buy one!"

"I'm not ready to hand over the wheel."

"A usage model will replace the ownership model."

"If there are no drivers, transport will probably be cheaper."



"There are probably benefits but I won't board one."

"The ideal thing is a shared self-driving car."

Mobility-focused events are the ideal opportunity to share the results of the citizens' debate:

- The European Mobility Exhibition - the GART-**UTP** Congress in Paris on June 12-14, 2018. www.gart.org

- Leonard, the open laboratory for the future of cities and infrastructure created by VINCI. held a day of discussion focused on driverless vehicles on June 21.

Site: www.leonard.vinci.com

- The "Innovative City" international congress in Nice on June 28, 2018. www.innovative-city.com

- The 2018 Autonomy Summit will be held in Paris from October 18-20, 2018 www.autonomy.paris

- The Smart City Expo World Congress in Barcelona, from November 13-15, 2018.

www.smartcityexpo.com

Finally, the citizens' debate results will be put into perspective in a joint publication from CEREMA in autumn 2018. CEREMA is a public body that provides support for public policies, operating under the aegis of both the Ministry for the Ecological and Inclusive Transition and the Ministry of Territorial Cohesion.